

Meeting Minutes
RI DEM • Room 300

In attendance: Janet Coit, DEM, Council Chair
Michelle Burnett (for Jamia McDonald), EMA
Julia Gold (for Dr. Michael Fine), DOH
Kevin Flynn, DOA/Planning
James Boyd (for Grover Fugate), CRMC
Marion Gold, OER
Melissa Long (for Michael Lewis), DOT
Shauna Beland (for Marcel Valois), Commerce

Others: See attached sign in sheet

Director Coit called the meeting to order at 2:33 p.m.

Approval of minutes for the March 27th meeting. Jim Boyd moved to approve. Director Licht seconded the motion. All voted in favor.

Housekeeping. Director Coit reviewed the meeting schedule, noting that this was the first of two meetings on vulnerability assessments, with the second scheduled for April 14, that the next council meeting will be on April 9 and feature a presentation on the State Energy Plan, and that a meeting has been added on April 15 to focus on municipal needs and experiences. She thanked Kate Brock, Policy Advisor for Governor Chafee, for putting together a survey for municipalities.

Presentations and Discussion. Kevin Flynn, Associate Director of Planning at DOA, moderated a panel discussion on vulnerability assessment efforts. He provided an overview of current projects and coordination among various agency staff, as well as the role his office plays in assisting municipal planning efforts, such as the development of comprehensive plans and hazard mitigation plans.

Director Licht asked how such efforts were being coordinated with municipal officials, especially in inland communities that are not affected by sea level rise. Mr. Flynn responded that the effects of climate change, including riverine flooding, wind and heat, are seen as impacting communities throughout the state, and noted this is now a mandatory element for each municipality to include in its comprehensive plan. The same is not yet true for Hazard Mitigation Plans. Michelle Burnett, however, pointed out that the recently-released updated State Hazards Mitigation Plan explicitly addresses sea level rise and other climate change related hazards.

Director Coit noted that at her recent meeting with the nation's state environmental agency leaders, there was a lot of discussion about what California and other states are doing to mitigate and prepare for climate change, with an effort to have more coordination among states. She added that a presentation by Vermont highlighted the impacts from heavy rains on inland communities, and identified many new state-level policies put in place to plan for and recover from flood-related disasters. Jim Boyd commented that Director Licht's question is important, and that we need to recognize that there are certain things we should address on a statewide basis, where currently we are not delivering consistent information to cities and towns; an example is the need to provide a state sea level rise map

and projections upon which municipalities can rely as they make plans and decisions in their communities.

Mr. Flynn introduced Bill Patenaude of the DEM's Office of Water Resources. Mr. Patenaude announced that DEM just issued a Request for Proposals to conduct vulnerability assessments of the state's major **wastewater infrastructure** systems (not just the main facilities, but also pump stations and other critical elements). The RFP builds on work already done by RI Department of Health for assessing drinking water treatment facilities and reflects input and experiences of other agencies. The contractor will be asked to summarize existing science available at global, national, regional and state levels, as well as conduct site visits and staff interviews at the wastewater treatment facilities. This information will be used to develop a vulnerability assessment that will provide a tool useful for decision-making by local and state officials and for communication to rate payers. The goal is to get the project started in the summer of 2014 with reporting beginning in late 2014 or early 2015.

With regard to scientific data assessment, Ames Colt asked whether there should be one entity to compile, organize and disseminate scientific information to various projects statewide, instead of science being developed on a project-by-project basis. This might be a recommendation for the report. *Director Coit suggested the short-term formation of a science subcommittee for the EC3 to address this issue and accepted Jim Boyd's offer to lead that group.*

Michelle Burnett offered RI EMA's assistance related to information on historical flooding, etc, as a means to assist communities in working with the consultant.

Kevin Flynn then introduced Julia Gold of DOH. Ms. Gold discussed how her department conducts **public health** vulnerability assessments. The department approaches vulnerability from several perspectives, including social, geographical and public health. She did not discuss the already completed assessment of the vulnerability of drinking water systems to sea level rise, storms, etc. The final report is available on-line.¹ She briefly reviewed the vulnerability of key medical facilities located in areas projected to be impacted by sea level rise. She also emphasized that the health care system is changing and that, in the future, RI may have fewer major hospitals, which may affect the overall vulnerability analysis.

With respect to social vulnerabilities, Ms. Gold pointed to their documented prevalence in areas known to be especially vulnerable to impacts such as heat, flooding, increased transmission of waterborne diseases, etc. Regarding health effects from heat, we already experience steep increases in hospital admissions at 75 degrees, but these are not necessarily recorded correctly. People do not always recognize that temperature change is the cause of their symptoms. Also, temperature change affects the young and elderly, whereas dehydration affects the 18-year and older adults. This raises questions about how accurate our recording is, as well as whether we target our communication appropriately, i.e. which population, doctors, etc. Heat is a major factor in deaths across the country each year, and hotter weather will increase the death-rate.

The data has several limitations, often allowing for trend analysis only. It does not always allow precise calculation or projection of impact. For example, with respect to pollen, DOH only has hospital data which does not indicate how often other people are impacted; or, with respect to flooding or heat, current data does not reveal the impact on the mentally ill, who do not access emergency care as much

¹ <http://www.health.ri.gov/publications/reports/2013EnsuringSafeWaterForRhodeIslandsFuture.pdf>

as others. For Lyme disease, our current estimate is 800 cases per year in RI, but the Centers for Disease Control estimates for RI are nine times that level.

Director Coit noted the importance of trying to help each department coordinate efforts, and pointed out the many areas of overlap. For instance, DEM's urban forestry program can help to mitigate heat in cities. Ms. Gold agreed and pointed out that some strategies have multiple benefits; for example green stormwater infrastructure can produce environmental, flood management and public health benefits. She ended by saying that her department plans to release the Climate and Health Profile report in September 2014, and by returning to a point she had made repeatedly, the importance of communication, asking the question: **how can the Council coordinate public messaging around Climate Change?** Director Coit reiterated the point made that social connections are critically important in the context of vulnerability and resilience.

Moving on to other infrastructure areas, including **utilities**, Kevin Flynn asked if the representative from National Grid would like to speak. Mr. Sandy Taft commented that National Grid was very interested in data such as that mentioned by Julia Gold. (Grid and DOH committed to following up to explore how data can be shared between public and private sector entities, when some of the data may have proprietary or confidentiality issues.) He similarly emphasized that communication has proven to be critical for utilities, as well, including the need to develop effective communication relationships with local public safety departments. He and Director Coit encouraged people to attend a conference at Antioch College in New Hampshire on May 19 that will address this and other resiliency topics.

Mr. Taft spoke about one focus being on "hardening" infrastructure to help it withstand impacts. This is especially important for the natural gas infrastructure which was hit very hard in NY and NJ during recent storms and is very difficult to bring back on-line. It is equally important, however, to focus on "getting back," i.e. being able to get back to critical components of (locations in) the infrastructure in the event of flooding or other damage, and more generally getting back up and running again in the event of outage.

Tom Kogut of the RI Public Utilities Commission also spoke and highlighted "post-Irene" work by National Grid and others, such as providing communities with readily available documents that list and show key energy infrastructure in their community. Mr. Kogut will provide more information, for example about the annual review through the Infrastructure Safety and Reliability docket, at the April 14 meeting.

Looking ahead to that meeting, and part two of the vulnerability assessment discussion, Kevin Flynn asked Council members to consider the following questions relating to recommendations the Council wants to make:

1. What resources will be needed (allocated, reallocated, pursued from new sources, pooled, shared, etc.) for state agencies to be able to help implement the recommendations?
2. What mechanism will we use to identify who/what agency/ies will be responsible for identifying problems and solutions, and then for implementation?
3. What mechanism do we use to identify gaps, coordinate this information, and share it?
4. What mechanisms will be used to communicate with the public (without inducing panic)?

Public Input. Director Coit asked if members of audience had any questions or comments.

Judith Swift, Director of URI's Coastal Institute, offered the www.riclimatchange.org website as a public outreach mechanism. She informed the group of her previous research in New Orleans after Hurricane Katrina, including interviews with over 100 people impacted by Katrina, and of her plans to present a play based on this material that dramatizes experiences from people living through and rebuilding a life after a significant storm.

Dr. Timmons Roberts of Brown University noted work done by Brown graduate students to help communities, for example Central Falls, develop and use hazard mitigation plans. He suggested that such work could be beneficial to the Council and asked what RIEMA's plans are in this regard. Michelle Burnett acknowledged the value of this work; it has been incorporated into the new Hazard Mitigation Plan, which will be used in ongoing outreach to municipalities.

Director Coit mentioned a stirring speech by CA Governor Brown at her recent meeting with state environmental executives, where he spoke of, among other things, the business opportunities associated with clean energy and adaptation.

Jim Boyd mentioned that CRMC's Ocean SAMP subcommittee just recommended approval of the Deep Water Wind power proposal off Block Island. He also noted ongoing work to assess impacts to ecosystems as part of the Beach SAMP program and work done with the Insurance Institute for Business & Home Safety.

With no further business, Director Coit asked if for a motion to adjourn. Michelle Burnett moved, Kevin Flynn seconded. All voted in favor.

The meeting adjourned at 4:01 p.m.